A NEW

Prognostication,

For the Year of our

LORD GOD, 1679.

Being the 3d after Bissextile or Leap-year, and from the Creation of the World,

5628.

Wherein is contained the exact Day, Hour and Minute of the new Moon, her Full and Quarters; with a Description of the Eclipses; The daily disposition of the weather, and moveable Feasts; with the whole known Fairs in *Scotland*. As also two Tables for the Tides at *Leith*, and Moons age, throughout the year.

Exactly calculated according to Art, for the Meridian of the most famous City of *Edinburgh*.

		deg.	min.
Whole	Latitude is	56.	00.
	Longitude is	21.	00.

By JAMES COCK, Mathematician.

Edinburgh, Printed for the Year, 1679.

A succinct computation of memorable things to this present year, 1679.

The Creation of the World according to Chronology,	5628
The Creation according to verity,	6000
Noah's Flood,	3672
Sodom and *Gomorrah* destroyed by fire,	3581
The building of *Rome*,	2431
The building of *Edinburgh* Caſtle,	2009
FERGUS the firſt King of *Scotland*,	2028
The Paſſion and Death of *CHRIST*,	1646
The laſt Deſtruction of *Jeruſalem* by *Veſpaſian*,	1610
The Chriſtian faith firſt received in *Scotland*,	1469
The firſt uſe of Guns,	0259
PRINTING firſt uſed in *Britain*,	0229
The Gun powder Treaſon, *Novemb.* 5.	0074
The Birth of King *CHARLES* the { Firſt, / Second.	0079 / 0649
The moſt ſucceſsful and marchleſs March of the L. General *Monck* from *Scotland* to *London*,	0659
His *Majeſties* moſt gracious Letter and Declaration to the Parliament, and to Gen. *Monck*, &c.	0659
His *Majeſties* happy Arrival at *London*, *May* 29,	0660

Now we may look on Monarchy, and ſing,
In health and peace, long live Great CHARLES our King.

Common Notes and moveable feaſts for this year, 1679.

The Golden Number, 1
The Epact, 1
The Dominical Letter
Faſtens even, or Shrove Tueſday, February
Paſch or Eaſter day, April
Whitſunday, June

Here follows an excellent Table of Points, and half Points, every quarter of the Compass, very useful in Navigation, for speedy finding the difference of Latitude, and Departure without the Table of Signs, Tangents and Logarithms, or any instrument whatsoever, onely by Arithmetical Calculation.

Points and half Points.		Points and half Points.		One quarter of the Compass.
half P	98	7 and H	995	E $\frac{1}{2}$ N
1 P	195	7 P	981	E B N
1 and H	291	6 and H	960	E B N $\frac{1}{2}$ N
2 P	383	6 P	924	E N E
2 and H	471	5 and H	883	E N E $\frac{1}{2}$ N
3 P	556	5 P	831	N E B E
3 and H	624	4 and H	773	N E B E $\frac{1}{2}$ N
4 P	707	4 P	707	N E
4 and H	773	3 and H	634	N E $\frac{1}{2}$ N
5 P	831	3 P	556	N E B N
5 and H	883	2 and H	471	N E B N $\frac{1}{2}$ N
6 P	924	2 P	383	N N E
6 and H	960	1 and H	291	N N E $\frac{1}{2}$ N
7 P	981	1 P	195	N E
7 and H	995	half P	98	N $\frac{1}{2}$ E

As for Example, Suppose a Ship sail S W B W half a point W 160 miles: I demand the Ships diff. of Latitude and Departure.

Answer.

S W B W. $\frac{1}{2}$ W. is 5 P. and a half, viz. 883 471

Which multiplied by the Diff. sailed, 160 160

52980 28260

883 471

Departure 141 | 280 75 | 360

Hence by cutting off the last three Figures towards the right hand, I find the Departure 141. miles, and my difference of Latitude 75 miles. Understand the like upon any other quarter of the Compass.

Of the Eclipses, 1679.

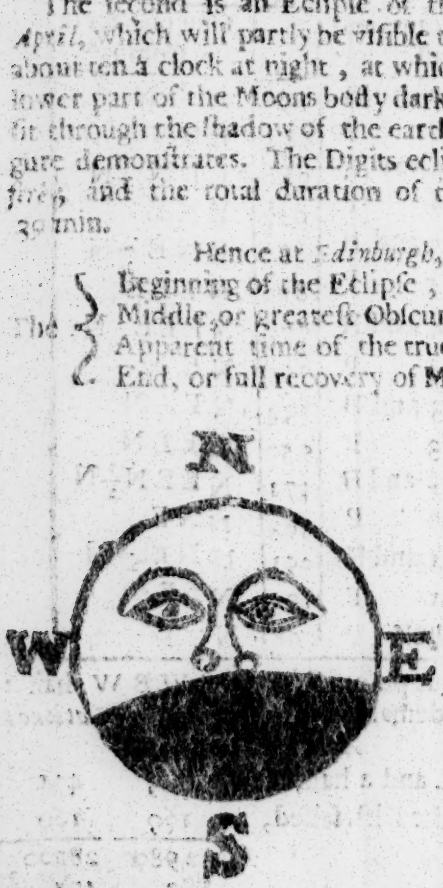
THere will be four Eclipses this year, *viz.* two of the Sun, and two of the Moon.

The first is of the Sun, the 31. day of *March*, about 9 a clock at night, and therefore it will be scarce visible to us.

The second is an Eclipse of the Moon the 15. day of *April*, which will partly be visible to us, if the air be clear, about ten a clock at night, at which time you will see the lower part of the Moons body darkened, during her transit through the shadow of the earth, as the following Figure demonstrates. The Digits eclipsed are 5 and 19 minutes, and the total duration of the Eclipse, is 2 hours 30 min.

Hence at *Edinburgh*, h.

The { Beginning of the Eclipse, is at - - 8
Middle, or greatest Obscuration - - - 10
Apparent time of the true opposit. 10
End, or full recovery of Moon light - 11



The third is an Eclipse of the Sun, upon Wednesday the 24 of *September*, about six a clock in the evening, it will not be visible to us at *Edinburgh*, because the Sun is set to us, ere the Eclipse be well begun, but it will be visible at *Bermudas*, *Virginia* & other parts of the west *Indies*, where it may be seen both at Sea and Shore.

The fourth and last, is of the Moon, upon thursday the 9. of *October*, about 11 a clock in the forenoon, and therefore it will be invisible to us at *Edinburgh*; but to such as sail Keel to Keel, under our *Scots* Firth and *German* Ocean it will be seen: and at Shore, by the inhabitants that lives to the northwards of *Nova Albion*, upon the West Coast of north *America*.

The

THe 19. day of *October*, 1678. is now approaching, on which day about 8 a clock at night, there will be a prodigious Eclipse of the Moon (in 5 *d.* 48 *m.* of ♓) the like whereof has not happened many years before, nor shall not many years after. The Eclipse is both Total and Central, so that there will be no Moon Light to be seen for one whole hour and 46 min. time, but total darkness only; for so long time will the Moon be in passing through the dark Conical shadow of the earth.

I need not intreat the intelligent (both at Sea and Shore) to be vigilant in observing the passions and motions of this Eclipse, with such Sea and Land Instruments as the time and place can afford, and to communicate their observations; which I know the more noble and refined Spirits will, without any perswasions from me: for besides the Citizens of *Edinburgh*, *Glasgow*, *&c.* I doubt not but (if the air be clear, and not hazie) many thousands in the Isle of *Britain*, will take inspection thereof: But be the observers who will, and in what part of *Britain* soever, I shall freely give you the product of my Calculation thereof, for the meridian of the most famous City of *Edinburgh*, where I find, that,

		h.	*m.*
The	Beginning of the Eclipse is at	5	56
	Beginning of total darkness at	6	55
	Apparent time of the true Oppositi. at	7	49
	Middle or greatest obscuration at	7	58
	End of total darkness at	8	41
	End of the Ecl. or full rec. of Moon light	9	41

The exact day, hour and minut of the New Moon, her Full and Quarters; with the daily disposition of the Weather; and whole known Fairs in *Scotland*, for the year, 1679.

xxxi. January begins on Wednesday.

New moon 2 d. 7 min. past noontide.
First quarter 9 d. 10 min. past 3 in the morning.
Full moon 16 d. 51 min. past 5 in the afternoon.
Last quarter 24 d. 48 min past 9 at night.

This year begins with hail, snow, and strong frost to the middle of the moneth and from thence to the end foggy weather.

The first Fair in the year, is at Kilsyth the 1 day. S. Naughlans. at the Kirk of Betheny, in Gerry, upon the 7 day. S. Mungo in Glasgow the 13 day a Fair, and at Dunkel and Kilwinning, the 21 day.

xxviii. February begins on Saturday.

New moon 1 d. 9 min. past 1 in the morning.
First quarter 7 d. 16 min. past 2 in the afternoon.
Full moon 15 d. 18 min. past noontide.
Last quarter 23 d. 16 min. past 2 in the afternoon.

The i. and ii. frost: thence to the vi. snow and hail: from the vi. to the x. cold North-east winds: thence to the xx more calm: the rest of the moneth cold showers now and then.

At Abernethy and Forres in Murray-land, called S. Wides day 1. On Candlemass day in Bamff, Dunkell, Dingwall the 2 day. In Cowper of Fife the first wednesday of the moneth. Valentines day at Linlithgow the 14 day, and at Forfar the 15 day holding eight dayes. Ashwednesdays Fair beginneth on Fastens even, at Lanerk the same day; at Valley-field the 24 d.

xxxi. March begins on Saturday.

New moon 2 d. 38 min. past 8 in the morni

First quarter 9 d. 37 min. past 3 in the morning.
Full moon 17 d. 48 min. past 4 in the morning.
Last quarter 25 d. 5 min. past 3 in the morning.
New Moon with an Eclipse 31 d. 22 min. past 6 at night.

The first viii dayes nipping frost: thence to the xii more warm: from xii to xviii variable, thence to the xxv some showres with sun-shine, the rest of the moneth nipping frost.

S. Monnence in Aberdeen, Dumfermling, Abercherder, S. Marnoch Kirk and Strathaven the 1 day, at Petten-weem 3: S. Duthos in Tain of Ross the 9 day, in Auchtertuil the 10 day, S. Causnan the 11 day. A fair at Durie the 15 day of this moneth, with a weekly mercat. S. Patrick in Dumbartan, and at the Kirk of Strageeth and at Kirkaldy, a fair of Horse, Neat, and Sheep, &c. the 16 day in S. Johnstoun the 19 day, Cuthbert in Langtoun of the Mers the 20 day, Lady day in West-Strems, Bamff, and Auchtermuchty the 25 day, Palmsunday at the Kirk of Forrig, and in S. Johnstoun, and Skeirthursday Fair is upon thursday before Goodfriday, at Cowper of Angus, otherwise Monks Cowper. A Fair in Forres, called S. Marks fair, the first tuesday after Easter.

xxx. *April begins on Tuesday.*

First quarter 7 d. 46 min. past 6 in the afternoon.
Full moon with an Eclipse 15 d. 35 min past 11 forenoon.
Last quarter 23 d. 47 min. past 11 in the forenoon.
New moon 29 d. 16 min past 7 at night.

From the beginning of this moneth to the vii day expect cold winds with sharp showres now and then, thence to the xiv more calm: from the xiv to the end foggy weather.

A fair at Lesly on tuesday before Easter: in Corstorphine the first tuesday after Easter a fair, S. Donald fair at the Kirk of Achtheles 17 day. Mark Evangel in Dysert the 23 day, Beltan-day the first, the 26 day, a fair at Rugland the 28 day continuing four dayes, at Leeven the 29 day, and in Kiereny the 30 day.

Whiles in *March* and whiles in April.

Skeirethursday before Pasch in Glasgow, Dumbartan, Cowper of Angus, Elgin of Murray, Pasch-mun day in Cowper of Fife, Lanerk, and Irwing, Lowsunday after Pasch in Killimure, and all the week after at the Sengie of St. Andrews.

xxxi. *May begins on Thursday.*

First quarter 7 d. 54 min past 11 forenoon.
Full moon 15 d. 13 min. past high noon.
Last quarter 22 d. 23 min. past midnight.
New moon 29 d. 15 min. past 11 in the forenoon.

This moneth begins fair and clear to the 15, rayn with some fogg and mist: the rest pleasant weather.

The first day of May, called S. Philip a fair in the Grange within the Sheriffdom of Linlithgow.

Holy-crosday the second Beltan, in Monross, Kinrosher and in Peebles the 3 day, a fair at Hawick on Teviot, of horse, neat, and sheep, the 6 d. at Carlouck and Drymen (a the Lenox (with a weekly mercat every thursday) the 10 day, at Banff and at Kirkaldy, a fair of Horse, Neat, and Sheep, &c. the 16 day, and in Stirling a Fair. 10 dayes before whitsunday. Ascension day at the Burgh of Annan. A fair at Dorse the tuesday before Whitsunday, with a weekly mercat.

Whiles in *May* and whiles in *June.*

Whitsunday in Glasgow, Dumbarton, Lanerk, and Edinburgh, whitsuntuesday called Pardon day in the Chanry of Ross, and at the Kirk of Nindans above Kirkaldy. Trinity-monday in Edinburgh and Bricges 8 dayes, in S. Andrews one day, in Brunt-Island one day. A fair in Killyth the friday before whitsunday. A fair in the Burgh of Linlithgow, the first thursday after whitsunday. Trinity tuesday in England lasting 2 dayes. Trinity thursday in Falkland.

xxx. *June begins on Sunday.*

First quarter 6 d. 48 min. past 3 in the morning.
Full moon 14 d. 44 min. past 3 in the morning.
Last quarter 20 d. 58 min. past 9 at night.
New moon 27 d. 49 min. past 9 at night.

This moneth begins with very hot weather to the 15 some showrs; from the 15 to the end of the moneth, kindly summer weather.

A Fair in Monross the first tuesday of June, in Longnewton 3 day, and Strueigh, Aberdour, and Dunnotter 3 day, a weekly mercat in Forfar; beginning the 8 of June, of Neat, Sheep, Horse, &c. continuing to the first of October, a fair in Drymen the 9 day, in Forgondenny the 10. S. Barnabie in Lauder and Dysart, S. Laurence at Grinnock 11 day, the same day there

is a fair at Dirleton, with a weekly mercat every wednesday; also there is a fair at Preston-Pans the same day, with a weekly mercat every tuesday, S. Margaret in Abernethie, Ceres in Fife 13 day, Midsummer or St. Johns day in St. Johnstoun five dayes, in Air four dayes, in Wigton, Bamff, Athelston and Muckloun in Perth-shire, (with a weekly mercat every wednesday) the 14 day, in Auchtertuil and Clackmannan 15 day, at Strathaven 16 day, Scoon the 16, 17, 18 dayes, with a weekly mercat every thursday. A fair at the Burgh of Annan, the third tuesday of June, S. Margaret in Dumfermling and at Moffat 18 day, in which place there is a weekly mercat every friday, Earlestoun 19 day. A fair at Cauldstream upon Tweed yearly, the said 19 day, of all sorts of Merchandize, as also of horse, neat, and sheep. Monro his fair holden at Colrain in Ross-shire the 20 day, Methil, near Leevens-mouth 22 day, Midsummer day in Forres the 24 day, and at Townyettam on the Border, the 24 day of Horse, Neat, and Sheep, &c. with a weekly mercat. In Alathy in Angus, called S. Emagola, and at the town of Nicolson the 25 day. S. Peters day at Forfar 26 day, holding four dayes. As also in Earlkland, Brunsland, Bamff, Kelso, 26 day, Galashiels 27 day, in Peebles 29 day, S. Sheriff fair the last tuesday of this moneth, S. John Baptist day a fair in Fraserburgh 24 day.

xxxi. July begins on Tuesday.

First quarter 5 d. 41 min. past 8 at night.
Full moon 13 d. 33 min. past 10 in the forenoon.
Last quarter 20 d. 2 min. past 1 in the morning.
New moon 27 d. 21 min. past 10 in the forenoon.

The first vi dayes exceeding hot; from the vi to the xviii some thunder and rain; thence to the end calm and clear, with some showres.

A fair at Edzerstoun in Teviotdale the 1 day of this moneth. A fair in the Stow, the first day of this moneth, holding 2 dayes, in Culross the 1 day, Abernethy and Auchtermuchty 2 day, S. Martins of Balzeon 4 day, S. Thomas 5 day, S. Paladius in Forden in the Mernes 6 day. S. Andrew in Glasgow the 7 day, a fair in the Burgh of Annan the second tuesday of this moneth, in Kilwining the 12 day, the 13 S. Margarets in Killimure, 8 dayes at the kirk of Forrig, the third tuesday in this moneth: Moffat and at Kirkaldy, a fair of Horse, Neat, and Sheep, &c. the 18 day, a fair in Stirling the 20 day, Magda-

dalen;

lent day in Lawder 22 day, with a weekly mercat every Friday, Mary Magdalene in Linlithgow, Petenweem, and Pathhead 22 day, in Airth the 24 day, S. Christina in Corsforphine a fair the same 24 day, S. James in Forfar, Cowper of Fife, Lanerk, and Roxburgh, Kinghorn, Alloway, Elgin in Murray, and in Musselburgh the 25. Pollinar fair in Inverury, and Lambas fair in Turref both on the last tuesday. The last thursday of July a fair in Lesly, and at white-horn two dayes.

xxxi. *August begins on Friday.*

First quarter 4 d. 56 min. past noon.
Full moon 11 d. 3 min. past 6 in the afternoon.
Last quarter 18 d. 52 min. past 7 in the morning.
New moon 26 d. 4 min. past 1 in the morning.

This moneth begins with some showres, till the viii day; thence to the xii seasonable weather; from the xii to the xvi window: the rest of the moneth good.

Lambasday in Atterse 3 dayes long and in Melrois, Ennerkeithing, S. Andrews, and in Dumbartan the 1 day, Lawrence fair in Rane the first tuesday, and thursday after in Faulklans, in Kilsyth 5 day, in Meiklour the 7 day, S. Lawrence in Selkirk, Auchtermuchty and in Forres 10 day, in Rane 2 dayes before Kilmahug, and at the burn of Campse, Lady day in Dundee, Banff, Menes, Vallefield, the 15 day, the 20 day a fair at Rugland 4 dayes, the 22 a fair at Scoon 3 dayes, with a weekly mercat every thursday, S. Colms in Drymen the 23 Bartholemew Apostle in Linlithgow, Kincarn of Neil, and in Clakmannan, and Peebles the 24 day, S. Zepherines in Corsforphine the 28 day a fair. Samarevis day in Forres 27, and S. Iohns day in St. Johnstoun and in Lawder the twentie ninth day.

xxx. *September begins on Munday.*

First quarter 3 d. 42 min. past 4 in the morning.
Full moon 10 d. 25 min. past 2 in the morning.
Last quarter 16 d. 17 min. past 6 afternoon.
New moon with an Eclipse 24 d. 45 min past 5 afternoon.

The first ten dayes pleasant Harbest weather, thence to the middle of the moneth fair and clear; the rest of the moneth variable.

Saint Gilles in Elgin 1 day, in Moffat 2 day, in Skirlin 4 d. Latter Lady day in Stirling, Dundee, and Banff 8 day, a fair at Cauldstream upon Tweed the first 8 day yearly, of all sort

of

of merchandize, as also of Horse, Neat, and Sheep. A Fair at Berwick on Tweed, of horse, neat and sheep, the 10 d. Rude day in Carill, Jedburgh, Dumfermeling, Dumfries, and Atheil-ston 24 day, at Longnewton 25 day, in Auchtermuil and Salan the 11 day, a fair at Forfar the 15 day, holding eight dayes. A fair at Kirkaldy of Horse, Neat and Sheep, &c. the 20 day. A fair in the Strow 23 day, with a weekly mercat every friday. Mat. Apostle in Linlithgow 21 day, a fair at Colrain in Ross-shire called S. Georgis fair 25 day. A fair at Leeven & at Nicollon the 27 day, a fair at Tranent the same day with a weekly mercat every Saturday. S. Michael in Haddington, Leslie, Air, S. Andrews, Crief, Kirkcudbright, Gallashiels, & at the Kirk of Forrig the 29 day. A fair at the Burgh of Annan, the same day, S. Jerome in Bamff the last day. A fair at Dunse the 27 day of this moneth, with a weekly mercat.

xxxi. October begins on Wednesday.

First quarter 2 d. 29 min. past 6 at night.
Full moon with an Eclipse 9 d. 6 min past 11 forenoon.
Last quarter 16 d. 29 min. past 8 in the morning.
New moon 24 d. 22 min past 3 in the afternoon.

This moneth begins with raw frost to the 7 day, from the 7 to the 17 rain now and then, thence to the end, wind and frost.

The 1, 2, 3 dayes a fair in Salt-Preston, a fair in Middle-calder, the first Tuesday of this moneth. S. Francis in Abernethy and Valley-field 4 day in Meikleur the 5 day, at Edenstoun in the border 2 miles from the Red-squire 5 day. in Cowper of Fife the 6 day, a fair at the town Lon-head of Leffwaid the 8 day, Dionise in Peebles, Earleston, Kirkintilloch, Aiton, Auchtermuchty, Ceres in Fife, in Killimure, Moffat the 9 day, Dalkeith, and Tillibole 10 day, at Ennerkeithine and Straitbalen the 12 day. Fenduck at Durring 13 day, in Forgonderie and Drymen the 15 day, at Musselburgh the 16 day. S. Luke in Lawder, Kinross and Kugland 18 day, Townyettam on the Border 20 day of horse, neat and sheep, &c. with a weekly mercat. S. Irena in Corstorphine and at the Kirk of Carlouck 20 day with a weekly mercat every wednesday, Mary Salamine in Stirling and Kelso 22 day, a fair at Forfar 24 day, holding 8 dayes. in Linlithgow 24 in Kilrenie and Stramigle 25. Fowles fair in Paisley, and Falkirk 26 day, Simon and Jude in Rosline, (with a weekly mercat every Saturday) Dysert, Falkirk, Cockburn

kany, and at Kirkliſtoun 28 day, in Alloway and at Nicolſon the 29 day. The laſt thurſday of this moneth, a fair in Whitehorn, holding two dayes.

xxx. November begins on Saturday.

Firſt quarter 1 d. 28 min paſt 6 in the morning.
Full moon 7 d. at 9 a clock at night.
Laſt quarter 15 d. 10 min. paſt 2 in the morning.
New moon 23 d. 33 min. paſt 3 in the morning.
Firſt quarter 30 d. 3 min. paſt 4 in the afternoon.

This moneth begins with froſt and ſnow to the vii day; the viii ſr and x thaw; thence to the xvi froſt; the reſt of the moneth kindly winter weather

Hallowday in Edinburgh 8 dayes, in Faulkland, Dumblane, Fordyce 1 day, in Alathie 2 dayes, in Kilwinning 3 day, Leonard in Lanerk, in Forres and in Largo the 6 day, alſo there is a weekly mercat in Largo every friday, S. Matth. in Dumbar Melrois, Martins-Kirk, Strabogie, Cowper of Fife, Hamilton, Culroſs, Killmahug 11 day, a fair at Kilſyth the 12 day. S. Clement in Dundee, 13 day, S. Helins day at Grinock 15 day, a fair at Doun in Monteith 15 day, Margretmaſs in Dumfermeling or Lawder 16 day, S. Mucharmuch in Tane and Auchtertuil 22. Bruntiland 23, S. Andrew in S. Johnſtoun, Peebles, and Chirnſide 30 day.

xxxi. December begins on Munday.

Full moon 7 d. at 9 a clock in the morning.
Laſt quarter 14 d. 25 min. paſt 10 at night.
New moon 22 d. 16 min paſt 10 at night.
Firſt quarter 29 d. 10 min. paſt midnight.

This moneth begins roughly to the x day, thence to the xviii black froſt; from the xviii to the xxiii cold eaſterly winds; the year is likely to end with froſt and ſnow.

S. Nicholas in Aberdeen 7 day, Lady day in weſt-weems 8 day, S. Duſtane in Bamff and at the Kirk of Diere 14 day, S. Cuthbert in the Grange, within the Sheriffdom of Linlithgow, the 7, 8 day. The 12 day a fair at Durie, with a weekly mercat. S. Thomas in Glaſgow the 15 day, a fair at Doun in Monteith 15 day, S. Johns day in Bamff, Forres, Methil near Leevens mouth 17 day.

Here followes eight observations of the Suns Meridian Altitude, which I made at *Edinburgh*, in *Anno* 1673. with a Quadrant of six foot *Radius*: exactly divided into 90 Degrees, and each Degree sub-divided into 60 Minuts. These Observations I made purposely, for to discover the Latitude of that most famous City; and I do freely communicate the same to the world, that the present age, and rising generation, may do the like, by comparing their Observations with those of mine: and I doubt not, but they will finde (to their great satisfaction) the verity of these Observations.

Time of observation, 1673. dayes.		Suns Mer. altitude observed. d.	m.	Sunsplace by Calculation. d.		m.	Suns decl. by Calculation. d.		m.	Latitude of *Edinburgh*. d.	m.
July	29	50	02	12	♌	56	16	N	02	56	00
August	4	48	14	21		58	14		14	55	00
	7	47	17	24		52	13		17	56	00
	18	43	33	05	♍	29	09		32	55	59
	27	42	14	14		13	06		14	56	00
Sept.	3	37	34	21		02	03		34	55	00
Octob.	8	34	6	25	♎	34	09	S	55	55	59
	13	32	24	00	♏	34	11		42	55	00

The first Columne is for the time of Observation, shewing the moneth and day that I observed.

The second Columne, shews the Suns altitude, which I observed directly at Noon-tide, or when the Sun was upon the Meridian.

The

kany, and at Kirkliſtoun 28 day, in Alloway and at Nicolſon the 29 day. The laſt thurſday of this moneth, a fair in Whittorn, holding two dayes.

xxx. November begins on Saturday.

First quarter 1 d. 28 min paſt 6 in the morning.
Full moon 7 d. at 9 a clock at night.
Laſt quarter 15 d. 10 min. paſt 2 in the morning.
New moon 23 d. 33 min. paſt 3 in the morning.
First quarter 30 d. 3 min. paſt 4 in the afternoon.

This moneth begins with froſt and ſnow to the viii day; the viii ir and y thaw; thence to the xvi froſt; the reſt of the moneth kindly winter weather

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Laſt quarter 14 d. 25 min. paſt 10 at night.
New moon 22 d. 15 min paſt 10 at night.
First quarter 29 d. 10 min. paſt midnight.

This moneth begins roughly to the x day, thence to the xviii black froſt; from the xviii to the xxiii cold eaſterly winds; the year is likely to end with froſt and ſnow.

S. Nicholas in Aberdeen 7 day, Lady day in weſt-weems 8 day, S. Duſtane in Bamff and at the Kirk of Dievе 14 day, S. Cuthbert in the Grange, within the Sheriffdom of Linlithgow, the 7, 8 day. The 12 day a fair at Durie, with a weekly mercat. S. Thomas in Glaſgow the 15 day, a fair at Doun in Monteith 15 day, S. Johns day in Bamff, Forres, Methil near Leevens mouth 17 day.

Here followes eight observations of the Suns Meridian Altitude, which I made at *Edinburgh*, in *Anno* 1673. with a Quadrant of six foot *Radius*: exactly divided into 90 Degrees, and each Degree sub-divided into 60 Minuts. These Observations I made purposely, for to discover the Latitude of that most famous City; and I do freely communicate the same to the world, that the present age, and rising generation, may do the like, by comparing their Observations with those of mine: and I doubt not, but they will finde (to their great satisfaction) the verity of these Observations.

Time of observation, 1673. dayes.	Suns Mer. altitude observed. d.	m.	Sunsplace by Calculation. d.		m.	Suns decl. by Calculation. d.		m.	Latitude of *Edinburgh*. d.	m.
July 29	50	02	10	♌	14	16	N	02	56	00
August 4	48	14	21		58	14		14	55	00
7	47	17	24		52	12		17	56	00
18	43	33	05	♍	29	09		32	55	59
27	42	14	14		15	06		44	56	00
Sept. 3	37	34	21		02	03		34	56	00
Octob. 8	24	6	25	♎	34	09	S	55	55	59
13	22	24	00	♏	34	11		42	56	00

The first Columne is for the time of Observation, shewing the moneth and day that I observed.

The second Columne, shews the Suns altitude, which I observed directly at Noon-tide, or when the Sun was upon the Meridian.

The

The third Columne, shews the true place of the Sun at Noon, the day of Observation, which I exactly calculated from my Tables of Eclipses, fitted for the Meridian of *Edinburgh*.

The fourth Columne, shews the Suns Declination at Noon, relating to the true place of the Sun in the Ecliptick.

The fifth Columne, shews the Latitude of *Edinburgh*, (as being the result and product of the other four) and of these eight Observations, the major part determines the Latitude of *Edinburgh* to be just 56 degrees.

How to finde the Latitude of the place, and the Suns Declination (for any Degree and Minute of the Ecliptick) I shewed you fully in my *URANOSCOPIA*, printed *Anno* 1662. to which I refer you, as having neither time nor convenience here to shew it.

And how to make, and use the Land Quadrant, either for Astronomical or Geometrical Observations; I have shewed that at large in my *PRACTICAL GEOMETRY*, printed, *Anno* 1666.

I design'd several Observations anent our new fountains lately brought into the City, with divers necessar and useful Tables: but being confin'd to a poor sheet, I reserve these Mathematical Conclusions to a Treatise, which I intend, God willing, shortly to publish, if I can but get so much spare time from teaching *NAVIGATION, ASTRONOMY, GEOMETRY, DYALING, ARITHMETICK*, and all other parts of the Mathematicks, at the signe of the *Golden Sea-Quadrant* and *Cross-staff*.

ADVERTISEMENT.

ANy person that desires to buy the true Spirits of *Juniper-berries, Juniper-berries, Wormwood of wine rectified*, or any other Spirits they desire, may find them at the Lady *Grayes* Close, below *Gledstanes* and on the North side of the high street in the *Land-mercat*.

The

The Use of this and the following Table is this, first finde the age of the Moon on the other side, with which age of the Moon so found, enter this little table, and there (by inspection only) it will shew you the hour and minute of full Sea or high water at *Leith*.

A table shewing the hour and min. of high water at *Leith*, for every day of the Moons age, increasing or decreasing.

Moons age.		Full Sea at *Leith*,	
January.	*December.*	*Hours.*	*Min.*
1	16	2	44
2	17	3	32
3	18	4	20
4	19	5	08
5	20	5	56
6	21	6	44
7	22	7	32
8	23	8	20
9	24	9	08
10	25	9	56
11	26	10	44
12	27	11	32
13	28	12	20
14	29	1	08
15	30	1	56

As for Example, I demand what time it will be full Sea at *Leith* the fifth day of *January*, 1679. I enter the following Table and finds (directly over against the 5 day of *January*, the moons Age to be 3 dayes old; with which 3 I enter this little Table, and over against it, I see 4, 20. *viz.* 4 hours 20 min. signifying, that 20 min. past 4 that Morning or Afternoon, it will be full Sea at *Leith*.

In like manner, the 18 day of *January*, the Moons age will be 16 dayes old, and the 12 of *May*, she will be 15 dayes old, and the 15 of *July*, she will be 18 dayes old, &c. by which, and this little table, you may finde the time of full Sea at *Leith* during this year, 1679.

LORD GOD of Hosts be with our brave Sea-men, whatsoever they be.

A readie Table, shewing the Age of the Moon every day throughout this year, 1579.

The dayes of the Moneths.	Ianuarie	Februarie	March	Aprill	May	Iune	Iulie	August	September	October	November	December
1	29	30	29	1	2	3	4	5	6	7	8	9
2	30	1	30	2	3	4	5	6	7	8	9	10
3	1	2	1	3	4	5	6	7	8	9	10	11
4		3	2	4	5	6	7	8	9	10	11	12
5	3	4	3	5	6	7	8	9	10	11	12	13
6	4		4	6	7	8	9	10	11	12	13	14
7	5		5	7	8	9	10	11	12	13	14	15
8	6	5	6	8	9	10	11	12	13	14	15	16
9	7	6	7	9	10	11	12	13	14	15	16	17
10	8	7	8	10	11	12	13	14	15	16	17	18
11	9	8	9	11	12	13	14	15	16	17	18	19
12	10	9	10	12	13	14	15	16	17	18	19	20
13	11	10	11	13	14	15	16	17	18	19	20	21
14	12	11	12	14	15	16	17	18	19	20	21	22
15	13	12	13	15	16	17	18	19	20	21	22	23
16	14	13	14	16	17	18	19	20	21	22	23	24
17	15	14	15	17	18	19	20	21	22	23	24	25
18	16	15	16	18	19	20	21	22	23	24	25	26
19	17	16	17	19	20	21	22	23	24	25	26	27
20	18	17	18	20	21	22	23	24	25	26	27	28
21	19	18	19	21	22	23	24	25	26	27	28	29
22	20	19	20	22	23	24	25	26	27	28	29	30
23	21	20	21	23	24	25	26	27	28	29	30	1
24	22	21	22	24	25	26	27	28	29	30	1	2
25	23	22	23	25	26	27	28	29	30	1	2	3
26	24	23	24	26	27	28	29	30	1	2	3	4
27	25	24	25	27	28	29	30	1	2	3	4	5
28	26	25	26	28	29	30	1	2	3	4	5	6
29	27	26	27	29	30	1	2	3	4	5	6	7
30	28	27	28	30	1	2	3	4	5	6	7	8
31	29		29		2		4	5		7		9

The dayly Age of the Moon this year, 1579.

Si a regardé son moignoie
Qui ert tous racuiriés em
Par raison estre ne péus
Qu'ele jamais son puig r'
Mais Dix, qui bien seut s
Li volt rendre tout son d
Si tost comme li puigs to
A son lieu, Diex le rassa
Qui mires est deseur nat
Ne emplastre ne loiéure
N'i convient mettre puis
Car en peu d'eure Dix la
Aussi fort et aussi aidant,
Aussi bel, aussi manoiant
Comme il ert quant ele l'
Au jour que ele le colpa,
Trestout autel li rendi Di
Puis envoie une vois des

A readie Table, shewing the Age of the Moon every day throughout this year, 1679.

The days of the Moneths.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1	29	30	28	1	2	3	4	5	6	7	8	8
2	30	1	29	2	3	4	5	5	7	8	9	9
3	1	2	1	3	4	5	6	7	8	9	10	10
4	2	3	2	4	5	6	7	8	9	10	11	11
5	3	4	3	5	6	7	8	9	10	11	12	12
6	4	5	4	6	7	8	9	10	11	12	13	13
7	5	6	5	7	8	9	10	11	12	13	14	14
8	6	7	6	8	9	10	11	12	13	14	15	15
9	7	8	7	9	10	11	12	13	14	15	16	16
10	8	9	8	10	11	12	13	14	15	16	17	17
11	9	10	9	11	12	13	14	15	16	17	18	18
12	10	11	10	12	13	14	15	16	17	18	19	19
13	11	12	11	13	14	15	16	17	18	19	20	20
14	12	13	12	14	15	16	17	18	19	20	21	21
15	13	14	13	15	16	17	18	19	20	21	22	22
16	14	15	14	16	17	18	19	20	21	22	23	23
17	15	16	15	17	18	19	20	21	22	23	24	24
18	16	17	16	18	19	20	21	22	23	24	25	25
19	17	18	17	19	20	21	22	23	24	25	26	26
20	18	19	18	20	21	22	23	24	25	26	27	27
21	19	20	19	21	22	23	24	25	26	27	28	28
22	20	21	20	22	23	24	25	26	27	28	29	29
23	21	22	21	23	24	25	26	27	28	29	30	1
24	22	23	22	24	25	26	27	28	29	30	1	2
25	23	24	23	25	26	27	28	29	1	1	2	3
26	24	25	24	26	27	28	29	30	2	2	3	4
27	25	26	25	27	28	29	30	1	3	3	4	5
28	26	27	26	28	29	1	1	2	4	4	5	6
29	27		27	29	30	2	2	3	5	5	6	7
30	28		28	1	1	3	3	4	5	6	7	8
31	29		29		2		4	5		7		9

The dayly Age of the Moon this year, 1679.

Si a regardé son moignole
Qui ert tous racuiriés enn
Par raison estre ne péus
Qu'ele jamais son puig r'e
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Car en peu d'eure Dix la
Aussi fort et aussi aidant,
Aussi bel, aussi manoiant
Comme il ert quant ele l'
Au jour que ele le colpa,
Trestout autel li rendi Di
Puis envoie une vois des

ɔie tornée
ı trouvée
x cele a garie
esté marie.
ne venrés,
poisson verrés:
et retenir
vous ouvrir;
ı sa mulete,
gant pourtrete,
ıs a esté
par maint esté:
;e Marie
e s'amie.
ınt joie faire.
saintuaire.
ır assena,
mena;

Qu'ele le met seur la fe
Le coutel tint en sa main
Onques mais feme ce ne
Car le coutel bien amont
S'en fiert si son senestre
Qu'ele l'a fait voler bien
En la riviere là aval.
De la grant dolor et du
Que ele senti s'est pasm
Ains que ele se fust rele
Englouti sa main .j. pois
Qui est apelés esturjons;
Molt en estoit liés par s
Aval l'ewe s'en va jouan
Del esturjon ci vous lair
Et à Joïe revenrai,
Oui de pasmisons releva.
Son moignon, qui molt

1675. Glaogen.

ous atent ;
ande qu'errammment
emorés.
estre honnourés
du païs,
rcacié et quis
cief couronne :
iau don vous donne.
tuit vous mandent
ous atendent ;
iront,
rieront. »
briément
alent
il l'a mandée.
oulourée,
s'en va
roy trouva ;